ABSTRACT

An adaptive pre-equalizer ~~(15)~~ is disclosed to compensate amplitude ripples in a low cost transmitter pass-band filter ~~(35, 200)~~. A filtered-x LMS algorithm is proposed to calculate the equalizer coefficients ~~(72)~~. To this purpose, the modulated RF signal is demodulated at the transmitter and subtracted from a filtered version of the original base band signal. The impulse response of the low-cost transmit filter ~~(35, 200)~~ is approximated by a delay ~~(73)~~. The disclosure may be applied to direct conversion or heterodyne transmitters using ~~e.g.~~ OFDM.